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10/582,998	06/14/2006	Koichi Miyachi	1035-643	6969
23117 7590 04/17/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
MOONEY, MICHAEL P				
ART UNIT		PAPER NUMBER		
2883				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/582,998

## Applicant(s)

MIYACHI ET AL.

## Examiner

MICHAEL P. MOONEY

## Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The cancellation of claim 7 is acknowledged.

#### ***Response to Arguments***

Applicant's arguments filed 1/2/08 have been fully considered but they are not persuasive. Applicant appears to be traversing the conventionally-known/Official-Notice statement made with regard to claim 7 in the non-final rejection (NFR) mailed on 10/10/07 since Applicant has amended claim 1 by incorporating the contents of original claim 7 into original claim 1.

Furthermore, Applicant argues in the 1/2/08 Remarks that not only does Tsumura fail to disclose or suggest a display having a medium which is provided such that a degree of optical anisotropy in the medium changes in response to application of an electric field, but there is also no logical reason why one of ordinary skill in the art would have ever modified Tsumura's IPS type LCD to have the medium called for in the 1/2/08 version of claim 1.

In response, the Office provides a newly-added reference that is added only as directly corresponding evidence to support the prior common knowledge finding, and it does not result in a new issue or constitute a new ground of rejection. The said newly-added reference is Yamaguchi et al. (6266109).

Yamaguchi et al. establishes that it is conventionally known to provide a Kerr effect medium in a liquid crystal device for the purpose of, e.g., providing better viewing angle characteristics. Providing better viewing angle characteristics in a liquid crystal display is clearly a conventionally known art-established principle. See column 1 and

column 2 of Yamaguchi et al. In particular, see col. 1 line 45 to col. 2 line 30 of Yamaguchi et al..

One of ordinary skill in the art instantly recognizes that a Kerr effect liquid crystal medium has a degree of optical anisotropy in the said medium changing in response to application of electric field. Therefore, Yamaguchi et al. is a newly-added reference that is added only as directly corresponding evidence to support the prior common knowledge finding of the 10/10/07 NFR, and it does not result in a new issue or constitute a new ground of rejection.

In a similar fashion, one of ordinary skill instantly recognizes the applicability of the Kerr effect liquid crystal medium and/or reasoning analogous to the above as applied to Okishiro et al.'s invention also.

Therefore, the 10/10/07 NFR is essentially repeated below while keeping in mind that the 1/2/08 version of claim 1 merely incorporates original claim 7 into original claim 1. Therefore it is established that the 1/2/08 claims are all rejected under 103 recognizing that it is notoriously well known to incorporate the original claim 7 into original claim 1 and to form the 1/2/08 version of claim 1. Furthermore all claims dependent on the 1/2/08 version of claim 1 are also rendered as obvious based on conventionally known art-established principles.

Additionally, newly-added claim 24 is also addressed below.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-6, 8-20, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumura et al. (20030090448).**

Tsumura et al. teaches a display device comprising (i) a pair of substrates, at least one of which is transparent (e.g., paragraph 0025), (ii) a medium provided between the substrates (e.g., paragraph 0025), and (iii) a display element including a first electrode and a second electrode for applying an electric field to the medium so as to carry out a display (e.g., paragraph 0025), the first electrode and the second electrode being connected to separate switching elements (e.g., paragraphs 0025, 0063; figs. 1-9, 16, 24-25).

Furthermore "a degree of optical anisotropy in the medium changes in response to application of electric field" is rendered as obvious under Tsumura et al. since,

although "a degree of optical anisotropy in the medium changes in response to application of electric field" may not be expressly stated by Tsumura et al., it would have been obvious to do so because it is conventionally known to use the structures/elements in the designs already presented by Tsumura et al. for the purpose of providing a efficiently functioning liquid crystal device

Thus claim 1 is rejected.

Each and every element of each of claims 2-3, 5, 20 is taught by Tsumura et al. at, e.g., paragraphs 0025, 0063; figs. 1-9, 16, 24-25. Thus claims 2-3, 5, 20 are rejected.

Regarding claim 22, Tsumura et al. teaches wherein the first and second electrodes generate an electric field along a direction parallel to surfaces of the substrates at, e.g., paragraph 0006 (paragraphs 0025, 0063; figs. 1-9, 16, 24-25). Thus claim 22 is rejected.

Each and every element of claims 4, 6-19, 23 is rendered as obvious Tsumura et al. since, although the claim elements may not be expressly stated by Tsumura et al., it would have been obvious to do so because it is conventionally known to use the structures/elements in the designs already presented by Tsumura et al. for the purpose of providing a efficiently functioning liquid crystal device.

Thus claims 4, 6, 8-19, 23 are rejected.

Furthermore each and every element of new claim 24 is rendered as obvious under Tsumura et al. since, although the claim elements may not be expressly stated by Tsumura et al., it would have been obvious to do so because it is conventionally known

to use the structures/elements in the designs already presented by Tsumura et al. for the purpose of providing a efficiently functioning liquid crystal device. Thus new claim 24 is rejected.

**Claims 1-2, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okishiro et al. (20030052847).**

Okishiro et al. teaches display device comprising (i) a pair of substrates, at least one of which is transparent, (ii) a medium provided between the substrates, and (iii) a display element including a first electrode and a second electrode for applying an electric field to the medium so as to carry out a display, the first electrode and the second electrode being connected to separate switching elements (figs. 1-4).

Furthermore "a degree of optical anisotropy in the medium changes in response to application of electric field" is rendered as obvious under Okishiro et al. since, although "a degree of optical anisotropy in the medium changes in response to application of electric field" may not be expressly stated by Okishiro et al., it would have been obvious to do so because it is conventionally known to use the structures/elements in the designs already presented by Okishiro et al. for the purpose of providing a efficiently functioning liquid crystal device

Thus claim 1 is rejected.

Okishiro et al. teaches wherein the display device includes a plurality of the display elements, each of which includes a first signal line and a second signal line, and

the first electrode and the second electrode being connected to separate signal lines via separate switching elements. Thus claim 2 is met.

Although Okishiro et al. does not explicitly state "a first auxiliary capacitor in which one electrode is connected to the first electrode; a second auxiliary capacitor in which one electrode is connected to the second electrode; and an auxiliary capacitor wire connected to the other electrode of the first auxiliary capacitor and the other electrode of the second auxiliary capacitor" it would have been obvious to do so because it is conventionally known to provide such a capacitor arrangement in the configuration(s) of Okishiro et al. for the purpose of providing a efficiently functioning liquid crystal device.

Thus claim 21 is rejected.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL P. MOONEY whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael P. Mooney/  
Patent Examiner, Art Unit 2883

/Frank G. Font/  
Supervisory Patent Examiner, Art Unit 2883

April 14, 2008  
FGF/mpm